

DOCUMENT RESUME

ED 088 659

SE 010 504

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TITLE Country Profiles, Thailand.
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for the Study of Human Reproduction.; Population
Council, New York, N.Y.
SPONS AGENCY Ford Foundation, New York, N.Y.
PUB DATE May 69
NOTE 16p.

EDRS PRICE MF-\$0.75 HC-\$1.50
DESCRIPTORS *Biographies; Demography; *Developing Nations;
*Family Planning; National Programs; Population
Distribution; Population Growth; *Population Trends;
Social Sciences
IDENTIFIERS *Thailand

ABSTRACT

A profile of Thailand is sketched in this paper. Emphasis is placed on the nature, scope, and accomplishments of population activities in the country. Topics and sub-topics include: location and description of the country; population (size, growth patterns, age structure, urban/rural distribution, ethnic and religious composition, migration, literacy, economic status, future trends); population growth and socio-economic development (relationships to national income, size of the labor force, agriculture, social welfare expenditures); history of population concerns; population policies; population programs (objectives, organization, operations, research and evaluation); private efforts in family planning; educational and scientific efforts in population; and foreign assistance for family planning activities. (RH)

Country Profiles

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Issued by The Population Council
and The International Institute
for the Study of Human Reproduction,
Columbia University

May 1969

THAILAND

THIS paper is the first of a continuing series of profiles dealing with population matters in a number of involved countries. Each profile will follow an internationally comparable outline and will summarize various facets of the structure and growth of the country's population, the history of its population policies, developments in family planning activities, educational and scientific efforts in population, and other topics.

This report was prepared by Gordon W. Perkin, M.D., Program Advisor, Population, The Ford Foundation, Bangkok (with whom the idea originated); Dr. James T. Fawcett, Field Associate; Allan G. Rosenfield, M.D., Field Associate; and Dr. Sidney Goldstein, Field Associate, all of The Population Council, Bangkok. They express their appreciation to their Thai colleagues whose comments and suggestions are included. The report is published with the permission of General Netr Khemayodhin, Secretary General, Office of the National Research Council, and Dr. Sombun Phong-Aksara, Under-Secretary of State for Public Health.

THE POPULATION

Size and Growth Patterns

Thailand's population, which numbered only about 6 million persons in 1900, was enumerated at 26.3 million in 1960, the last official census. And even this figure is assumed to be an under-count, with the number in 1960 amounting to about 27 million. This four- to five-fold-increase in the country's population between 1900 and 1960 reflects an average annual growth rate of about 2 per cent for the thirty-year period following World War I. Most significant, however, is the increase in this rate of growth to 3.2 per cent per annum in the years between 1947 and 1960 and continuation at this or a slightly higher level. Estimates of the 1968 population range from 33.5 million to about 35 million. If current rates of growth persist, the 1960 population will have doubled by the time of the 1980 census.

Thailand's growth rate is among the highest in the world. It stems from

a sharp drop in the level of mortality but a continuation in the high level of fertility. In most of the first half of the twentieth century, Thailand's death rate remained fairly constant at about 30 per thousand. The end of World War II witnessed a dramatic change as the death rate declined to below 20 per thousand by the mid-1950's and to a low of 11 by the mid-1960's. This is the level currently estimated by the United Nations. The official Thai vital statistics, overlooking under-enumerations, show a rate of about 8 per thousand. The significant reduction in mortality and the consequent increase in life expectancy from about 35 years in 1937 to between 55 for men and 62 for women in 1964-1966 followed rapid adoption of modern medical technology and the expansion of health facilities throughout the country. The consequent reduction in deaths from diseases which formerly took high tolls is dramatic. For example, the annual death rate from malaria declined from 329 per 100,000 in 1943 to only 18 in 1964.

But fertility has not experienced a similar decline. The number of births in Thailand has been estimated by UN experts to range between 45 and 50 per thousand up to as late as the 1960 census. This level has persisted for the six decades of the twentieth century, with the exception of the period of World War II. Official Thai statistics report a rising birth rate approaching 40 per thousand in the mid-1960's, but this increase probably reflects nothing more than improvements in the level of registration. Several small studies have shown considerable interest in family planning and some evidence of fairly extensive use of a means of family limitation. But these attitudes and practices are evidently not sufficiently widespread or of long enough duration to affect the birth rate. The overall level of fertility in Thailand has not yet shown evidence of decline from former high levels, and Thai women continue to average about 6.5 births by the time they complete their reproductive cycle.

These high levels of fertility persist despite evidence that the age at marriage for females has increased. Between 1947 and 1960, census statistics on the percentage ever married show a decline of almost one-third in the per cent of women married by ages 20-24. In 1960, the age at which half of all females were married was just over 21 years; for males, the median age was a little over 24.

Infant and maternal mortality have declined significantly over the past twenty years, but considerable future improvement is possible. Infant mortality is in the range of 85 per thousand live births and maternal mortality around 4 per thousand deliveries.

In contrast to the last half of the nineteenth century, when immigration accounted for about half of Thailand's population growth, international migration no longer plays an

important role, averaging only about 2,000 persons per year in the 1960's.

Redistribution

The extent of internal migration in Thailand is indicated by two sets of data from the 1960 census. Comparison of province of residence in 1960 with province of birth shows that 87 per cent of the population lived in the same province in which they were born. Just under 11 per cent had changed provinces, and 2 per cent were foreign-born. Comparison of place of residence of the population five years old and over at the time of the 1960 census with their place of residence five years earlier in 1955 shows that 4 per cent were living in a different province. Of the total number of migrants, approximately three-quarters had made short-distance moves within one of the four major regions into which the country is divided. This is true regardless of the measure of migration used. Intra-regional migration, therefore, is the most important form of population redistribution, and it occurs most frequently in the Central Region where Bangkok is located. Of the four regions, three have gained through migration—the Central, North and South; only the Northeast has lost. Overall, however, the level of internal migration in Thailand is relatively low, even if account is taken of some under-enumeration of migrants due to census procedures.

Urban/Rural Distribution

Judged by both residence and economic activity, Thailand remains largely a rural, agricultural country. In the 1960 census only 12.5 per cent of the population lived in places classified as municipal areas. Of the 120 such places, 98 contained fewer than 20,000 persons each, and many are of doubtful urban character. Further reflecting the very low level of urbanization of the country is the fact that almost four out of every five persons resided in agricultural households. Typical of many developing countries, most of Thailand's urban population is highly concentrated in a single metropolitan center. Bangkok-Thonburi, with a 1960 combined population of 1.7 million, accounts for 52 per cent of the total population classified as urban and almost three-

fourths of the population living in places of 20,000 persons and over. Further attesting to Bangkok's primacy, the next largest urban place, Chiangmai, numbered only 66,000 persons in 1960.

By 1967, the urban population was estimated to have grown to 14.3 per cent of the total. Reflecting the increasing urbanization of the country, the population of all places classified as urban in 1960 increased by 43 per cent by 1967 while that of rural places grew by only 22 per cent. But the highest growth rate of all characterized Bangkok-Thonburi, which increased by 45 per cent between 1960 and 1967, in part from the inclusion of former rural areas in the expanded municipal area. As a result, in 1967 Bangkok-Thonburi's estimated population of 2.6 million accounted for even more of Thailand's urban population than in 1960—about 56 per cent.

Composition

Religiously and ethnically, the census shows Thailand to be a homogeneous population. In 1960, 95 per cent of all persons were reported as Buddhists. Just under 4 per cent were Muslims (located mostly in the four southern provinces) and less than 1 per cent Christians. All but 2 per cent of the population are native-born. The census reports 97 per cent as Thai and 3 per cent as Chinese, but it measures nationality by citizenship. The number of ethnic Chinese has been estimated to be as high as 3.5 million. Most live in urban places where they are engaged predominantly in commerce. In Bangkok, 30–40 per cent of the population has been estimated to be ethnic Chinese (i.e., persons maintaining some Chinese cultural or linguistic characteristics). According to the census, all but 3 per cent of the population could speak Thai.

Of the population aged ten and over, eight out of every ten were economically active. This was true of 82 per cent of the men and 77 per cent of the women. Reflecting the agricultural character of the economy, 78 per cent of the employed men and 86 per cent of the employed women worked in farming and/or fishing. Only 4 per cent of all men and 1 per cent of women were employed in professional, administrative or clerical work. Of all

economically active people, over half, 58 per cent, worked in unpaid family jobs.

Children under fifteen years of age make up about 45 per cent of the Thai population. Of those aged eighteen and over, nearly 40 per cent have had no schooling, and less than 2 per cent have had some secondary education. About 30 per cent of the population aged ten and over were estimated to be illiterate in 1960, but this represents a considerable reduction from the 69 per cent reported illiterate in the 1937 census and the 46 per cent in 1947.

Future Trends

The size of Thailand's future population will be a function of the extent to which mortality declines further and of the success and speed with which the currently high birth rates are reduced. Various projections have been made, based on different assumptions regarding the speed at which the vital rates will change. The highest projection, assuming a continuation of high fertility and rapid mortality decline, would lead to a population of 54.3 million in 1980, double that of 1960. The lowest, based on declining fertility and moderate mortality decline, projects a 1980 population of about 48.5 million, an increase of 80 per cent over 1960. Even under these latter conditions, therefore, Thailand will continue to experience rapid population growth.

Communal Groupings and Attitudes

There has been no attempt to make rigorous comparisons among Thailand's ethnic and religious groups on population variables. Several KAP¹ surveys conducted in different areas of Thailand in recent years provide some information, as do comparative data from clinic records. A series of three surveys was carried out in a rural area (Potharam District), under the joint auspices of the National Research Council and the Ministry of Public Health, and a family planning demonstration project was initiated in Potharam after the baseline survey. The Faculty of Public Health of the University of Medical Sciences con-

¹ KAP—Knowledge of, Attitude toward and Practice of family planning.

ducted a survey comparing Thai and Chinese groups in Bangkok, and another as part of a pilot project in suburban Bangkok. In Northern Thailand, a village survey was carried out near Chiangmai, under the auspices of McCormick Hospital. Recently the National Research Council has completed a KAP survey in two Muslim communities in the South, the results of which are not yet available.

In both rural Potharam and suburban Bangkok, where most of the population is Thai Buddhist, seven out of ten eligible women said they wanted no more children. In Potharam, before the start of the family planning service, knowledge about contraception and actual practice were negligible in spite of the apparent high motivation. In Bangkok, with a more educated population and ready access to family planning clinics in nearby Bangkok, a majority of women knew several modern methods of contraception, and 41 per cent were either sterilized or practicing at the time of interview. Preliminary analyses of reproductive experience show that the average number of live births for women in rural Potharam was 18 per cent higher than in suburban Bangkok.

Most family planning activity has taken place in Bangkok and, as would be expected, a high proportion of acceptors in the capital city have been Chinese. At Chulalongkorn Hospital, where about half of the IUD acceptors come from outlying rural areas and half from urban Bangkok-Thonburi, 19 per cent of the total IUD acceptors have been identified as ethnic Chinese. Available KAP survey data indicate that ideal family size is approximately the same for low income Thai and Chinese families in Bangkok.

In general, the data available show a high level of interest and motivation among Thai and Chinese women, but with knowledge and practice for both groups varying according to levels of education, urbanization and modernization. Where family planning information and services have been made available to women with little education in rural areas, acceptance has been higher than in most Asian countries, although not attaining levels equal to the interest shown

in survey results. In Potharam, for example, 30 per cent of the eligible population accepted some form of birth control within two years of the start of the project, while 70 per cent had stated in surveys that they wanted no more children.

DEVELOPMENTS TOWARD A POPULATION POLICY

During the first half of this century Thailand's official stance on population was predominantly pro-natalist. Over 50 years ago, when only 6 million people lived in Thailand, the Minister of Interior stated:

I would say that our country still has a small population relative to the expanse of her land. You can be sure that the land is capable of accommodating no less than five or six times the present population with no adverse result on the living standards at all. Development of the country, all in all, rests upon the people. On the defense side, a growing population certainly means a growing number of troops. From the macro-economic point of view, increase of population will inevitably encourage the growth of agriculture, commerce, and industry resulting probably in an abundance of goods and services. As we have seen, the government's national development programs are financed mainly with revenues from tax sources, which in turn will rise in volume in step with the population growth. Thus you will see how essential is the number of people to our national development, and we have to face a problem of how to increase it.

Apparently one of the major reasons for setting up a public health service in Thailand was to increase the rate of population growth by reducing mortality. Health services were provided initially by the Ministry of Interior, and in 1914 the Acting Minister stated:

[The Government] will now be free to deal with the problem of disease control and health promotion, which will lead to an increase in population to cope with the fact that our country is still sparsely inhabited. One can be sure that our land is lucrative enough to support no less than ten times the present number of people. The problem is only that the death rate happens to be too high, so an attempt to reduce the death rate among the people shall therefore be made without delay.

The wartime Prime Minister, H. E. Pibul Songgram, stated at the inaug-

uration of the Ministry of Public Health in 1942:

36 million hands of only 18 million people of the country are hardly enough to achieve national greatness. We need not less than 200 million hands and thus 100 million people to make our country a real power.

During the Second World War a Wedding Promotion Committee was appointed by the Minister of Health, which attempted to increase early marriages by projects such as a nationwide, simultaneous, group wedding ceremony held in 1944, and by the dissemination of slogans, e.g., "Get married young and make the nation prosper."

Under a later administration of Prime Minister Pibul Songgram in 1956, bonuses for large families were authorized in the Welfare of Persons with Numerous Offspring Act.

It was only in 1959, after receiving a World Bank report stating that Thailand's growth rate was too high and recommending the dissemination of birth control, that the Government began to evidence serious concern about the rate of population increase. Initially under Prime Minister Sarit Thanarat, and later under Prime Minister Thanom Kittikachorn, a series of committees was instructed to study the problem and make recommendations to the Cabinet. In addition, three national population seminars were held, each of which also submitted recommendations to the Government.

With the exception of one committee of the National Research Council, all of the Thai Government's own committees and seminars have warned of the dangers of too rapid population growth and have urged wider adoption of birth control. For instance, the conclusions and recommendations of the most recent national population seminar (1968) included the following²:

1. The increase of the population at the present rate will have adverse effects, causing obstacles to economic and social development in the country in the future.

² These items are extracted from a larger set of conclusions and recommendations, all of which urge positive government action on matters related to population growth.

2. All the data that have been collected point out the necessity for urgent action to be taken to cut down on the rate of population increase.

3. The government should stipulate a definite policy right now on the matter of cutting down on the rate of population increase.

4. Women in Thailand become pregnant too often and have too many children that they do not want. Such circumstances are bound to cause a deterioration in the health of both mothers and children, and will also cause women and children to die prematurely, at a very high rate. Moreover, the rapid increase in the population will cause many kinds of public health problems to arise.

5. The government should support and promote work by the Ministry of Public Health and medical institutions concerned with family planning, so that they will be able to expand family planning work to all hospitals and health clinics throughout the nation as quickly as possible, while providing genuinely effective support on budget funds and personnel allowances, as well as facilitating equipment for use in operational activities.

6. There should be teaching and training on contraception and family planning, given in medical schools, nursing schools, and midwife schools.

In spite of a ten-year series of recommendations such as these, the Cabinet has been reluctant to establish a population policy, but has issued statements permitting the limited spread of birth control services. In 1961, the Cabinet passed a resolution which announced, "Let birth control be voluntary among the people, who should know their own position as to how many offspring there should be. Advice on birth control may be given, but not overtly."

In the fall of 1967, the Cabinet approved a report recommending that the National Economic Development Board should have responsibility for developing a national population policy. The report included a recommendation that "The government should provide support and expand the scope of [family planning] assistance for poor families with many children—especially in provincial or rural areas."

Also late in 1967, Prime Minister Thanom Kittikachorn affixed his signature to the World Leaders' Statement on Population, and he noted at that time that "The Government of Thailand believes that parents have their own right to determine the number and spacing of their children."

In early 1968, the Cabinet gave permission for family health services, which had been started in Potharam District as a pilot project, to expand into other areas of the country, provided that information on contraception be restricted to women who already have children.

Late in 1968, His Majesty the King of Thailand publicly voiced his concern about the high rate of population growth, and expressed support for government family planning services extended to the people as part of the maternal and child health program. At the same time, the Prime Minister reinforced his previous statement on the danger of the present growth rate in Thailand.

RELATIONSHIP OF POPULATION GROWTH TO SOCIAL AND ECONOMIC DEVELOPMENT³

Following the report made by the World Bank in 1959, the social and economic consequences of rapid population increase have been brought to the attention of the Thai Government on a number of occasions. Influential citizens both in and outside the Government have urged the early adoption of a national population policy based on a consideration of these relationships, which are summarized in the following sections.

Continuing high fertility in Thailand has led to a high dependency burden with about 45 per cent of the population under fifteen years of age. A reduction in the present level of fertility would have the immediate effect of reducing the dependency burden. With fewer children to support, per capita income would rise. If the increase in per capita income

³ The assumptions, projections, and calculations cited in the following sections have been abstracted from a draft paper on the relationship of population growth to social and economic development in Thailand prepared by Mr. Hermann Hatzfeldt of the Ford Foundation. Dr. Gavin W. Jones of the Population Council provided useful suggestions for the final version of this section.

resulted in an increase in consumption, the level of living would also rise.

Another immediate effect of reduced fertility would be an accelerated decline in mortality. Fewer infant and maternal deaths would result if the number of births to older high-risk women could be reduced.

Relationship to National Income

Research has demonstrated that total national income is likely to grow at least as rapidly when fertility declines as when it remains constant at a high level. Under this assumption a reduction of one percentage point in the annual rate of natural population increase (i.e., from 3 per cent to 2 per cent per year) would result in over a 40 per cent difference in per capita income in thirty-five years, and a 100 per cent difference in seventy years.

Applying this principle to the Thai economy, it is possible to compare the effects of a continuation of the present rate of population increase on per capita income with the effects of a decline in population increase of 10 per cent during each five-year period from 1970 to 2000. A decline of this magnitude would bring the growth rate down to about 2 per cent by the turn of the century, a rate that would still be more than twice that of present growth rates in Japan and many of the developed countries.

With an ambitious national population program, a result of this magnitude is feasible. The result could amount to a B.2,455 difference⁴ in per capita GDP over the level that would be reached in 2000 if the current population growth rate were maintained. This 26 per cent increase is equivalent to the average per capita income in 1964.

Relationship to Size and Quality of the Labor Force

During the 1960's the working-age population (15-64) averaged about 52 per cent of the total population. The labor force participation rate has declined from about 85 per cent of the working-age population in 1960 to 82.2 per cent in 1966, and is expected to reach 80 per cent in 1970. The size

⁴ 20 B's = US\$1 as of March 25, 1969.

of the labor force, however, increased from 11.7 million in 1960 to 14.2 million in 1966 and will reach 16.1 million in 1970.

A reduction in the rate of population increase would have no significant effect on labor force size until after 1985, as those entering the labor force for the next fifteen years have already been born. A gradual reduction in the growth rate beginning in 1970 would have an effect after 1985 because there would then begin to be somewhat fewer new entrants into the labor market each year. Projections suggest that a gradual reduction of the population growth rate to 2 per cent by the turn of the century would result in less than an 8 per cent difference in the size of the labor force in 2000. If the number of students able to continue their education beyond compulsory levels were increased during the next fifteen years, this would reduce somewhat the numbers entering the labor force before 1985. On the other hand, the labor participation rate of women would be likely to increase since they would be less hampered by frequent births and large numbers of children in the family.

Although a reduction in the birth rate does not greatly affect the size of the labor force for many years, it may affect its *quality* much earlier than this. Better consumption levels facilitated by a decline in the birth rate should result in a better nourished and more healthy labor force. Moreover, it is easier to increase the proportion of children in school when the birth rate falls, and, before many years, this will mean a higher average level of education among the labor force. This effect is particularly important because within only 20 years, today's children will constitute the majority of the labor force.

Relationship to Agriculture

The importance of agriculture for economic development in Thailand can hardly be overemphasized. Presently, agriculture accounts for one-third of GDP, more than one-half of export receipts and four-fifths of total employment. For the foreseeable future the rate of economic and social development will be determined largely by developments in the agricultural sector.

Population growth affects agriculture by increasing the demand for food and by increasing the supply of agricultural labor. The most important effect of the increasing labor supply is on the land/farmer ratio. A gradual reduction in the population growth rate to around 2 per cent by 2000 would be likely to have little effect on the land/farmer ratio until the mid-1990's. Even at the turn of the century, it would probably result in less than a 10 per cent difference in the ratio compared with continued growth at the present rate. Because of the time lag, the major impact of a decline in population growth rates on land/farmer ratios would not become apparent until after the turn of the century. By 2015, however, projections suggest the differential effect could be close to one-third.

Since the domestic demand for rice is unlikely to change significantly with changes in income, the domestic consumption of rice is directly related to population growth. The exportable surplus of rice depends on the rate of increase in rice production and the rate of increase in population. With annual increases in both rice production and population projected at their present rates, the export rice surplus would be depleted by 1985. While it is likely that technological improvements may raise the annual rate of increase in rice production, this remains to be demonstrated.

A reduction in the annual rate of population growth to 2 per cent by 2000 could be expected to have a significant effect on exports. Thailand probably would not be forced to become a net importer of rice at any time. Indeed, the projections show that rice production would never lose its function as a foreign exchange earner. With a reduced rate of population growth, the domestic rice supply should be adequate to provide food for the growing population.

Relationship to Social Welfare Expenditures

Public Education

There were about 4.3 million students actually enrolled at all educational levels in 1960 and 5 million in 1965. Assuming some improvements in enrollment rates at the secondary level, total educational enrollment has been

projected to reach 17 million in 2000 at the present population growth rate, or 13.6 million if the rate of population growth were reduced gradually to about one-half its present level. With a lower birth rate the projected increase in the number of school age children would be reduced, enabling the Government to improve the quality of education or to increase the average level of education, or both.

Public Health

The cost of public health facilities and services is directly related to changes in the size of population. Expenditures on public health have increased at an average annual rate of 10 per cent during the 1960's and are forecast to reach a level of approximately B.20 per capita in 1970. The cost of a national population program could largely be met from the savings in health costs resulting from a reduced rate of population increase.

Social Services

Public per capita expenditures on all social services increased from B.10 per capita in 1960 to B.30 in 1966 and are projected to reach B.40 by 1970. This corresponds to an average annual growth rate of 14 per cent. Projecting continuing increase in welfare costs at about half the present rate, the cost of social services in 2000 would reach B.140 per citizen. Based on this assumption, the difference in social service costs in 2000 between continuing population growth at the present rate and a gradual reduction in the population growth rate to around 2 per cent by 2000 would come to nearly B.3 billion. This amount would be equivalent to the total expenditures on social services during the first four years of the 1960's.

Summary

The major effects of a national population policy and program on social and economic development would not become apparent until some 20 to 30 years after a program has been implemented, but the effects would be cumulative and would gain momentum over the years. Conversely, failure to initiate a program in the near future will require the commitment of greater resources over a longer period at a later date, as the negative effects of sustained rapid population increase on the economy are also

cumulative and gain momentum over time.

MINISTRY OF PUBLIC HEALTH

Organization and Responsibilities

The Ministry of Public Health (MOPH) is responsible for health activities, particularly in rural Thailand. Health facilities in the urban areas (principally Bangkok) are operated by the Municipality, which is responsible to the Ministry of the Interior. The Ministry of Defense also operates health facilities for military personnel throughout the country.

Within the MOPH, the Under-Secretary's Office is the central coordinating unit. In addition, the MOPH is divided into three departments: Medical Services, Health, and Medical Sciences. Each department is headed by a Director General with a moderately large staff (Figure 1).

The Office of the Under-Secretary of State for Public Health, besides

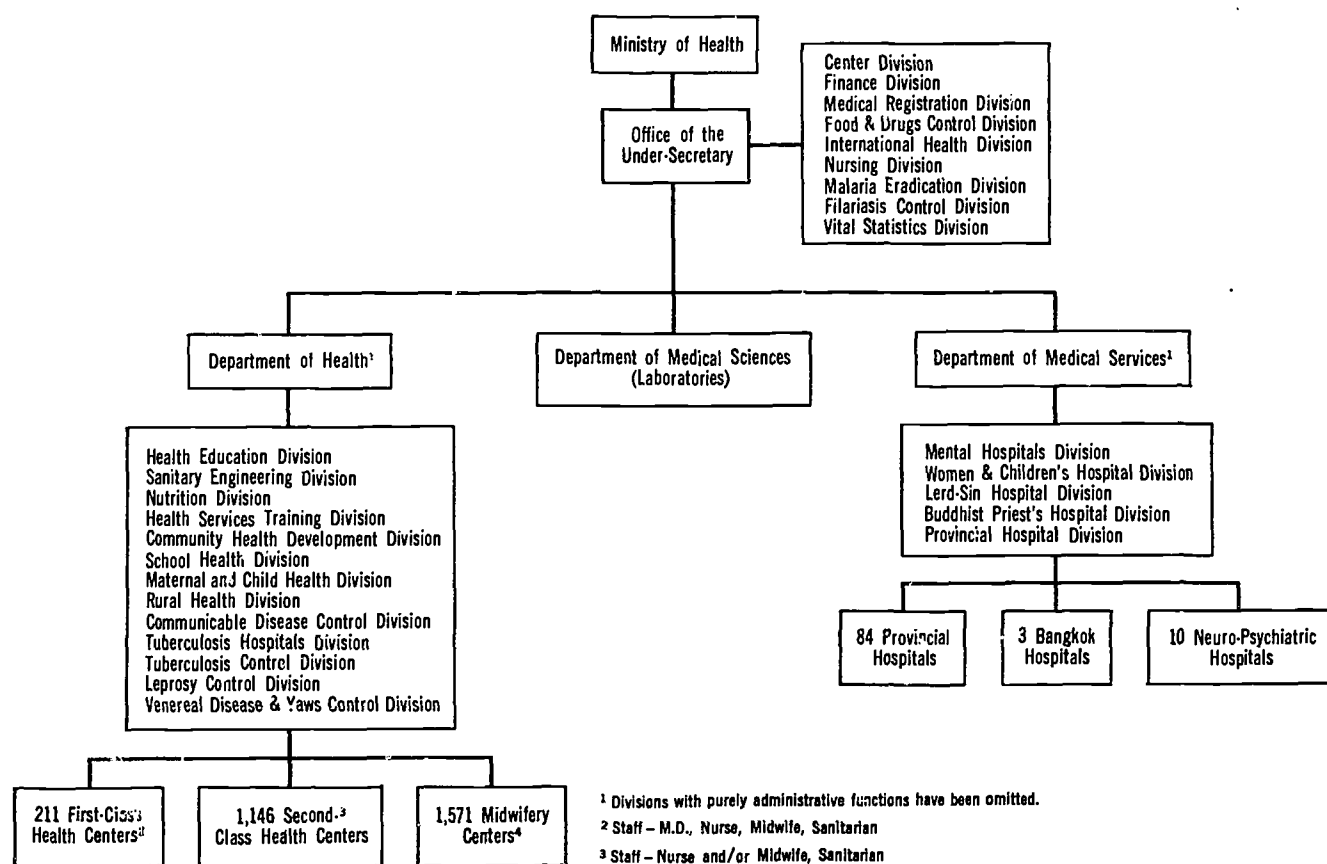
providing administrative services and coordinating the work of other departments, carries out certain programs through its own divisions, such as the Division of Medical Registration, the Division of Food and Drug Control, and the Division of Malaria Eradication. There are several important projects including the Family Health Project for which the Under-Secretary of State acts as Project Director.

The Department of Medical Services is responsible for the activities of eighty-seven urban and provincial hospitals and eleven mental hospitals. At least one hospital is located in each of the seventy-one provinces of Thailand, and three large Government hospitals are in Bangkok, including Women's Hospital which has the largest obstetrical service in Thailand—20,000 deliveries per year. Hospital directors report directly to the Department of Medical Services, although they also have

some responsibility to the Provincial Governor.

The Department of Health is primarily responsible for preventive health services in rural Thailand, although some curative activities are performed as well. The Department is divided into seventeen Divisions. Department of Health activities in each province are directed by a Provincial Health Officer who is in charge of the three classes of health centers. First-class health centers are staffed by a doctor and at least one nurse, midwife and sanitarian or male health worker. At present, slightly over 75 per cent of the first-class centers have doctors assigned. Second-class health centers are staffed by a male health worker, a midwife and occasionally a nurse. The midwifery center at the village level is staffed by a single midwife. As a result of frequent changes in classification due to upgrading, the following figures are only approximate: first-class health

FIGURE 1. *Ministry of Public Health—Organization Chart*



centers—211; second-class health centers—1,146; midwifery centers—1,571. The second five-year development plan calls for the upgrading or construction of additional centers to bring the above figures to 267, 1,431 and 1,739 respectively, by 1971.

A rapidly expanding Division of Maternal and Child Health (MCH) is one of the seventeen divisions of the Department of Health and is responsible for the activities of the midwives. New MCH Center-Midwifery School complexes are being opened, with two currently in operation, a third to be opened shortly and an additional six planned over the next five years. Each Center contains a maternity hospital of 60–100 beds.

The midwifery training program consists of an eighteen-month comprehensive health course, with an admission requirement of ten years of basic education. In the past, admission standards were lower: originally four years of schooling and subsequently seven years. There are five midwifery schools, two of them in the new MCH complexes that have already been opened. A total of ten schools are planned, one at each MCH complex and one in Bangkok at a large municipal hospital. In 1968, 340 midwives will graduate, and this number will increase as new schools open. Almost all graduates serve in the Department of Health.

There are thirteen schools of nursing in Thailand, producing 650 graduates per year. Five of these schools are run by the Department of Medical Services and graduate 280 nurses each year. Most of latter graduates have a commitment to serve a number of years in Government facilities. Nurses have completed twelve years of basic education, followed by three to four years of professional training, which includes training in midwifery.

Recent staffing figures within the MOPH are as follows: the Department of Medical Services has a total of 930 doctors and 2,384 nurses; the Department of Health employs 460 doctors, 519 nurses, 2,864 midwives and 2,153 sanitarians or male health workers.

The vast majority of physicians in Thailand work for the Government in some capacity. Full-time private practice is relatively uncommon al-

though this trend appears to be increasing in Bangkok, partly as a consequence of low Government salaries, which for physicians start at around \$90 per month. Most physicians working for the Government, both in Bangkok and in the provinces, conduct private practice in their off-duty hours. Considerable family planning is provided in the private offices, but there are no reliable figures available for the volume of this practice.

National Family Health Programs

Goals and Objectives

As the Cabinet has not yet formulated a national population policy, official goals and targets for the Family Health Program have not been established. Family planning, including both the spacing and limiting of pregnancies, is considered as an additional health service. Informally, for planning purposes within the Ministry of Public Health, it has been estimated that family planning acceptors will approximate 5 per cent of the eligible female population in each province one year after the program has been initiated. This amounts to a total of 66,000 acceptors in the eighteen provinces in the first year's program. The stated goal is to train at least one doctor and one nurse from every provincial hospital and all doctors, nurses and midwives in the Provincial Health Departments within three years.

Organization and Responsibilities

A Family Health Advisory Committee has been set up with the Under-Secretary of the Ministry as Chairman. Members of the Committee include senior officials of the MOPH. A physician and social scientist from the Population Council serve as advisors to the Committee. The Under-Secretary himself serves as the Project Director for Family Health. There are three sections reporting to the Project Director (Figure 2):

Operations. This section is responsible for the coordination of the overall activities of the Program, the organization and operation of training courses, the general administration and the organization of a supervisory structure. These activities are carried

out mostly within the Department of Health through its MCH Division.

Evaluation. This section is responsible for the development and operation of a comprehensive program evaluation system and will coordinate its work with outside institutions interested in evaluation.

Medical Research and Hospital Operations. This section develops and carries out medical research related to the family health project. These activities are under the direction of the Department of Medical Services which also supervises the clinic services in the provincial hospitals.

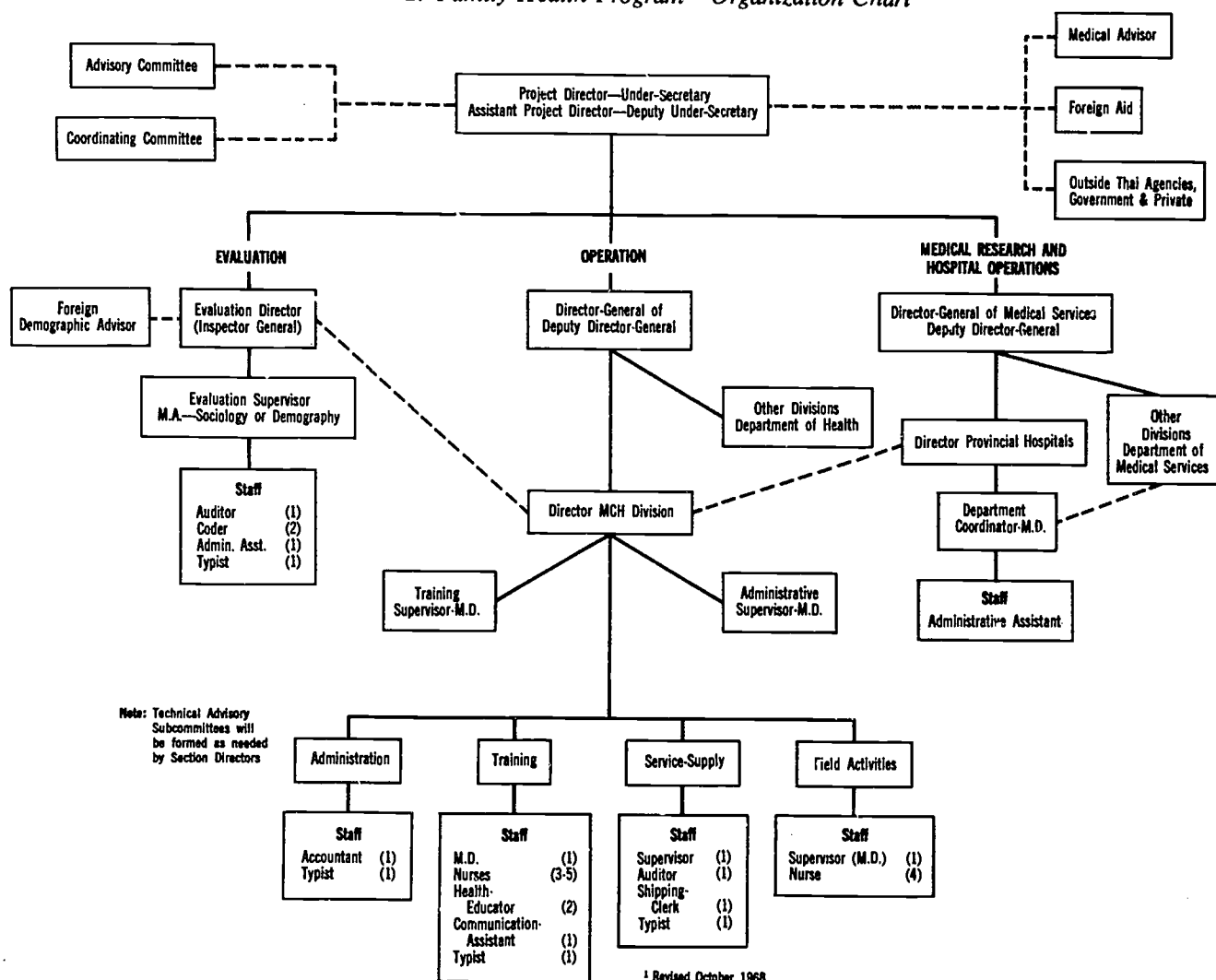
The Advisory Committee advises the Project Director on major policy questions. A coordinating committee, including representatives from many governmental and nongovernmental agencies, provides a mechanism for inter-agency cooperation.

Program Plan

In late 1967, a three-year plan for the expansion of family health services was prepared. The plan called for the training of a doctor and nurse from each provincial hospital and all doctors, nurses and midwives from the health department of each province during the period 1968–1970. Family planning services will be offered in each provincial hospital and first-class health center (with doctor) as training is completed. Midwives will emphasize person-to-person discussions, particularly during home visiting. Midwives may also be allowed to distribute supplies of oral contraceptives once a patient has had an initial prescription from a physician. In 1968, eighteen provinces were to be covered; in 1969, twenty-four provinces; and, in 1970, training and services will be extended to the remaining twenty-five provinces. Family planning services in Bangkok and Thonburi, each considered a province, will be the joint responsibility of the Ministry, the Municipality, the medical schools and other non-Ministry hospitals.

In addition to the eighteen provinces included in the first year of the official program, there are at the present time fourteen other provinces in which at least one clinic has been established by doctors trained previously.

FIGURE 2. Family Health Program—Organization Chart¹



Supervision

Ten senior nurse supervisors assigned to the central MCH office have attended the Family Health training program and will function as central supervisors of the nursing and midwifery activities of the project. They will be assisted by provincial nurse supervisors who are assigned to each Provincial Health Office and who have also attended the training course. There are, in addition, regional inspectors in the Under-Secretary's Office who will have supervisory responsibilities for this program. Full-time provincial family planning supervisors are not included in the present plan.

Incentives

No incentives are offered in the Ministry's program. There are no

official fees for IUD insertions or pill supplies, although a voluntary donation will be expected from all patients who can afford to pay. These donations become part of a general fund for use in the hospital or health center.

Personnel

Only a few professionals are assigned full-time to the Family Health Program. The modified organizational plan calls for several additional full-time positions in the central office. In the field, the program will be carried out by existing MOPH personnel. There are no plans for full-time family planning field workers.

Training

Courses for doctors and for nurses are held in Bangkok, where instructors from the Ministry, the Faculty of

Public Health and four hospitals with advanced family planning programs all collaborate in the training effort. Midwives are trained in the provinces by the small central training staff, with assistance from local doctors and nurses who have been trained in Bangkok. All training courses are of five days' duration. By December 1968, 103 doctors, 188 nurses and 1,020 midwives had been trained. During 1969, an additional 110 doctors, 205 nurses and 945 midwives will receive training.

Plans for short two-day courses for male health workers and a training program for traditional midwives, who perform the majority of deliveries in Thailand, are being prepared. Refresher courses will be given at a later date.

A series of programmed instruction

manuals in the methods of contraception have been adopted as a new and apparently effective method of instruction in Thailand. It is hoped that the successful introduction of this method will accelerate the training effort.

Communications

At the present time, the use of mass media is not permitted. A health education unit, however, has been sanctioned, and two full-time health educators assigned. Initial plans call for the development of patient information pamphlets, revision of a flipchart, the production of a film on family planning activities in Thailand and the development of a newsletter for health workers.

Evaluation

The Ministry of Public Health will evaluate the effectiveness of the family planning program by means of regular reports from the field plus an annual follow-up survey of users. Data will be collected, tabulated and interpreted by a small evaluation unit which is currently being set up as part of the Family Health Program. The evaluation unit will be supervised by the Inspector-General of the Ministry and will receive assistance from two data-processing units that are under the Ministry's jurisdiction. A social scientist from the Population Council serves as advisor to the evaluation unit.

Data from the field will be transmitted to Bangkok by means of the patient record form and a monthly report. The patient record form will be used to prepare periodic analyses of the characteristics of acceptors. It contains information on age, number of living children, education, occupation, place of residence, etc. The patient record form is filled out in duplicate at the clinic, and the originals are collected at the end of the month and sent to Bangkok.

The monthly report is prepared at the end of each month by each health station and hospital in the Program. It contains simple numerical tabulations of family planning activities during the month—number of new IUD and pill acceptors, number of IUD removals and reinsertions, number of return visits for re-supply, number of people educated, number

of home visits, etc. Hospitals transmit this report directly to the evaluation unit. Health stations send reports to the District Health Officer who compiles them and sends a combined report to the evaluation unit.

The evaluation unit will prepare the following summaries from the patient record form and monthly report:

- (i) Monthly Activities Report, wherein each item on the monthly report will be summarized for the whole Kingdom. A comparative analysis for each province will be included.
- (ii) Quarterly Report of Progress, showing the percentage of the eligible population who have accepted contraception in each province. To encourage competition, provinces will be listed in rank order by performance.
- (iii) Quarterly Characteristics of Acceptors Report, showing a descriptive profile of the total cumulative population of acceptors and trends over time for selected characteristics.
- (iv) Semi-Annual Program Summary, showing the highlights of performance during the preceding six months and evaluating overall progress in terms of previous performance and in comparison with programs in other countries.

The evaluation unit will also be responsible for organizing an annual follow-up survey of users, designed to measure continuation rates and evaluate patient satisfaction. Present plans call for approximately 2,000 interviews to be conducted annually by Ministry of Public Health nurses and midwives in selected districts. The evaluation unit will publish a report on results of this survey, and will use the data to derive an estimate of current contraceptive practice for all of Thailand.

Outside the Ministry of Public Health, research evaluating the Family Health Program will be conducted by several other agencies. The Population Research and Training Center of Chulalongkorn University is planning a national survey of social and demographic change, which will provide a variety of data directly and indirectly related to family planning activities. The Population and Social

Research Center of the Faculty of Public Health is continuing a pilot project and pregnancy prevalence survey in an area adjacent to Bangkok and plans to expand its demonstration work into a province in the Northeast. The National Research Council, which collaborated in the Potharam Pilot Project and has just completed a KAP survey among the Muslims in the South, is likely to continue its interests in the social science aspects of population. The Bangkok Municipal Health Department and Siriraj Medical School are also planning surveys related to family planning and fertility.

Medical Research

The Department of Medical Services is in charge of developing clinical research projects within the Ministry and cooperates with the research groups in the medical schools. Projects planned or under way include a study of the effect of oral contraceptives on patients with liver fluke disease, and an extension of the International Postpartum Program into ten rural hospitals. Other projects will be added as the Program develops. On-going projects outside the Ministry include a well-established urban postpartum program at four Bangkok hospitals, various IUD and oral contraceptive clinical trials, and several studies on the acceptability and effectiveness of the three-month and six-month injections.

Program Budget

At present there are no regular budget funds provided by the Thai Government specifically for family planning activities. In the first year of the program, the costs of training, staff and supplies (particularly IUDs) have been met by the Population Council. Commodities and third-country travel have been provided by USOM, short-term consultants by the Ford Foundation. The Thai counterpart contribution to the USOM budget was quite small for the first year. In the second year, a larger counterpart budget has been proposed, additional training assistance will be made available by UNICEF, and the other foreign agencies will continue their assistance. Adequate financing seems to be available for the immediate future.

of the program. The MOPH hopes to obtain increasing funds for this program from the regular MOPH budget.

INDIGENOUS SUPPORTING RESOURCES AND INSTITUTIONS

Governmental

Population Research and Training Center

The Population Research and Training Center at Chulalongkorn University was established in 1966, with support from the Thai Government and the Population Council. Its aims are threefold: (1) to promote public and official awareness, interest and knowledge about population matters in Thailand; (2) to train persons in Thailand to conduct demographic research and utilize demographic materials in both the applied and the scientific spheres; (3) to expand the store of knowledge about the population of Thailand, including the relation between population factors and various social and economic conditions.

Beginning with the 1967-68 academic year and increasingly so in the 1968-69 year which began in June 1968, the Center has proceeded to carry out these functions by developing a graduate training program in demography leading to the M.A. degree, by initiating a series of research projects on the population of Thailand, and by serving as a reference and dissemination center for information on Thailand's population, especially through participation of Center staff in national and international seminars, conferences and publications.

The Director of the Center holds a Ph.D. from the University of Chicago. The other two faculty members hold M.A. degrees in demography from the University of Pennsylvania. Faculty members from other Departments of the University also participate in the Center's training and research program. The Population Council has provided the services of a resident demographic advisor to the Center.

In 1967-68, ten students were enrolled in the newly established graduate training program of the Center. In 1968-69, eight of these

students continued into their second and last year of study; an additional twelve students have been enrolled as first year students, out of a total of sixty-eight applicants. This large number of applicants is indicative of both the growing interest in population studies and the need for trained demographers. Of the twenty students in the program, seven are supported for full-time study under fellowships given by the Population Council. Almost all of the others are employed by government agencies, medical or educational institutions. As part of their training, all of the students take course work in substantive demography, techniques of demographic analysis, statistics, social research and sociology. In addition, they are given the opportunity to participate in on-going research projects. Students prepare an M.A. thesis as part of the degree requirements.

Among the topics being investigated in student projects during the 1968-69 academic year are: "child spacing and socio-economic position," "socio-economic characteristics of family planning acceptors," "comparative study of mortality in different provinces of Thailand," "levels of socio-economic development in each district of Thailand," "age at marriage and its effect on fertility 1937-1960," and "future student enrollment in Thai universities."

As its major research undertaking, the Center has initiated a "National Longitudinal Survey of Social, Economic and Demographic Change in Thailand." A combination of cross-sectional and longitudinal surveys of both rural and urban samples will be conducted annually to assess basic characteristics of households and individuals and to measure changes in marriage patterns and family structure, fertility and family planning, morbidity and mortality, migration and modernization. In addition to the value of its research findings, the study will provide additional opportunities for research experience by the Center's student trainees.

National Statistical Office

The Government agency primarily responsible for demographic data collection and analysis in Thailand

is the National Statistical Office (NSO). The first official population census of Thailand was taken in 1911 when 8,266,000 persons were enumerated. Since then, five censuses have been taken at irregular intervals in 1919, 1929, 1937, 1947 and 1960. Plans are now in process for the 1970 census, and pre-tests of the schedule design have already been undertaken. Among the variables on which information was collected and tabulated in the 1960 census are: agricultural and non-agricultural households, age, sex, marital status, place of birth, place of residence five years earlier, number of Thai-speaking persons, citizenship, household size, number of ever-married women by number of children ever born alive, and economic status by occupation and by industry. A number of these variables are cross-tabulated with age and sex. All tabulations are available for each of Thailand's seventy-one provinces, and for the four major regions into which the country has been subdivided. A 1 per cent sample tape of the 1960 census returns is available for special tabulations.

According to present plans, the 1970 census will collect information similar to that obtained in 1960, except that the census will also include a set of questions on housing for a 25 per cent sample. The major changes will be likely to occur in the tabulations where more information will be provided for smaller units and where more variables will be cross-tabulated. More refined classification of urban-rural places is planned, permitting comparisons of urban-rural differentials as a measurement of migration between rural and urban places.

In addition to its responsibility for the census of population, the National Statistical Office conducts a number of other censuses and special surveys. In 1966, it completed a nationwide sample *Census of Business Trade and Services*. In 1964, it conducted the *Industrial Census* to obtain information on the number and characteristics of industrial establishments. In 1963, it completed the *Census of Agriculture*, providing information on agricultural holdings, productivity and selected characteristics of the holders. In 1961, it carried out

a *Household Expenditures Survey* in the Bangkok-Thonburi municipal area and the major regions of the Kingdom in order to study income and expenditure patterns of the population and to provide basic data for calculating a consumer price index. The NSO also cooperates with the Ministry of Education in the annual execution of a *School and Teacher Census*, designed to collate statistical data on schools, enrollments, teachers and their characteristics. As part of its ten-year statistical program, the NSO also initiated and has continued *The Labor Force Survey*, designed to obtain current information on the labor force by continuing surveys of the number and characteristics of employed and unemployed persons and the type and amount of work being performed. NSO also conducted the *Survey of Population Change* in 1964-66 to assess the level of coverage of the birth and registration systems in Thailand. (See *Division of Vital Statistics*, below, for a description of this survey.)

The findings of these various censuses and surveys are made available for general use in published reports. In addition, the NSO publishes the *Quarterly Bulletin of Statistics* and a *Statistical Yearbook*, summarizing the major findings of earlier censuses, current surveys and other social, economic and demographic phenomena on which statistical data are tabulated.

In addition to the survey data already described, these summaries include information on births, deaths and overseas migration as well as data on production, transport and communication, external trade, finance and banking, prices, crime and national income.

Division of Vital Statistics

Detailed tabulations of births, deaths, morbidity and general health services are prepared by the Division of Vital Statistics of the Ministry of Public Health. The registration of births and deaths has been required by law in Thailand since 1917. Complete annual records since 1920 are available. Births are supposed to be recorded within fifteen days and deaths within twenty-four hours. The level of registration has been estimated by UN experts at 75 per

cent complete in the case of births and 60 per cent complete in the case of deaths. To provide better estimates of birth and death rates in Thailand, the National Statistical Office sponsored the *Survey of Population Change* during 1964-1966. Using a sample of 29,000 households in both rural villages and municipal areas, interview data on births and deaths occurring in the period since the last quarterly interviews were obtained. These were then matched with vital events recorded in the official registration systems to ascertain the level of coverage. Analyses suggest about 85 per cent coverage of births and 70 per cent coverage of deaths. Adjusting for the underenumeration, the survey of Population Change shows the crude birth rate for Thailand to be about 42 per 1,000 in 1964-1966 and the crude death rate to be about 11 per 1,000. With the assistance of the World Health Organization, the Ministry is preparing plans to revise its registration system.

National Economic Development Board

The National Economic Development Board (NEDB) is a separate agency under the Office of Prime Minister, and has as its major responsibility preparation of Thailand's National Economic Development Plan. The NEDB is a technical agency with a purely advisory function. As the central planning authority, it is responsible for the formulation of long-term perspective, medium-term and annual plans, the preparation of sectoral programs, and the on-going evaluation of project proposals and their implementation. The NEDB has a professional staff of 170, about half of whom have been trained abroad.

Five principal divisions of NEDB can be distinguished, with the Economic and Social Planning Division responsible for overall planning. The Manpower Planning Division has been concerned particularly with the implications of population growth and has developed population projections that are incorporated in the current five-year plan. The NEDB, which has been given the responsibility for formulating population policy, wishes to incorporate such a policy in

the next five-year plan, which begins in 1971.

The Second National Economic and Social Development Plan (1967-71) prepared by NEDB makes only one specific reference to family planning, stating that "the [family planning] research which has been initiated during the first plan on a pilot basis will be extended to areas with particularly high birth rates and low incomes. Research will include local receptivity toward family planning, and the results will be useful in formulating future family planning policy."

The Population Council has provided a short-term consultant to NEDB to help determine the needs for demographic data in support of a policy, and is considering a program for long-term assistance.

National Research Council

The National Research Council is an independent agency of the Government established in 1959 to advance scientific programs in the natural and social sciences. Under its charter, it has responsibility to establish and support research groups and institutions, to coordinate research activities and to make recommendations to the Cabinet of Ministers. In the family health field, the National Research Council has sponsored the three National Population Seminars, has cooperated with the Ministry of Public Health in undertaking the pilot studies of acceptance of family planning in Potharam District and has carried out a KAP survey in two Muslim communities in the South. The Population Council has provided financial support for these activities and provides the services of a resident social scientist.

Faculty of Public Health

The Faculty of Public Health was established in 1948 as one of nine constituent institutions of the University of Medical Sciences of the Government of Thailand. Since 1964, the Rector of the University has been responsible to the Prime Minister's Office. The Faculty of Public Health offers degree programs for public health physicians, sanitarians, nurses, health educators and nutritionists. The Faculty has eleven departments with some eighty faculty members.

The annual operating budget of the Faculty is now about B.3 million. The number of students enrolled in the Faculty of Public Health has increased in each of the past several years and now totals over 400 students, with the largest percentage enrolled in public health nursing and sanitary science. About thirty Master's degrees in public health have been awarded for each of the past several years. The majority of the students are employees of the Ministry of Health holding positions in various provinces of the country. The Education Ministry also sends some school teachers for health education training.

The Population and Social Research Center

The Population and Social Research Center (PSRC), a unit of the University of Medical Sciences, is located in the Faculty of Public Health. The Dean of the Faculty of Public Health serves also as Director of the Center. The Center was authorized by the Cabinet in July 1966. A \$133,000 Rockefeller Foundation grant to the University of North Carolina in 1967 provided backstopping for the development of this new Center, including the services of a resident social scientist. The Population and Social Research Center has served as a mechanism to build population-related training and research activities into the Faculty of Public Health. The PSRC has close association with the Departments of Health Administration, Health Education, Maternal and Child Health, Biostatistics, and Public Health Nursing of the Faculty. The Center has a full-time staff of two senior members and seven research assistants. During 1967-68, a baseline fertility study was undertaken in Bangkhen, a semi-rural area near Bangkok. A detailed fertility and KAP-type survey along with a pregnancy prevalence study was initiated in the first phase of this program. A plan for expansion of the activities of the Center is under discussion.

Biomedical Support

Medical Schools. With the opening of the new Ramathibodi Hospital and Medical School in 1969, Thailand will have a total of four medical schools capable of producing about 400

physicians each year. The two existing medical schools in Bangkok, Siriraj and Chulalongkorn, have active family planning units as part of the Department of Obstetrics and Gynecology and have undertaken a number of clinical studies on oral and injectable contraceptives and on intrauterine devices. Both departments have participated in the International Postpartum Program sponsored by the Population Council for over two years. More recently, the medical school at Chiangmai in the North has become active in this field and is conducting several clinical studies, some in conjunction with McCormick Missionary Hospital, where a large-scale field study of injectable contraception is under way.

While family planning has not yet been formally introduced into the medical school curricula, considerable exposure of senior medical students is already taking place. Fourth year students at Chulalongkorn rotate through the family planning unit, receive lectures on reproductive biology and contraception, and have an opportunity to accompany the mobile unit on its visits to rural areas. Students in Chiangmai and Siriraj are also exposed to family planning in the Department of Obstetrics. Preliminary discussions regarding the formal inclusion of family planning in the medical school curriculum have taken place.

Reproductive Physiology. There is growing interest among a number of scientists in Thailand in expanding their activities in reproductive biology and in initiating more basic clinical studies of new and existing contraceptive methods. More than twenty-five physicians and scientists trained in endocrinology and reproductive physiology and family planning are already on the staff of the medical schools, Chulalongkorn University and Women's Hospital in Bangkok. USOM's FY '68 agreement included the provision of some laboratory equipment which, along with additional equipment provided by the China Medical Board, will enable four laboratories at these institutions to be equipped to conduct a variety of hormone assays and related biochemical analyses. The Ford Foundation, directly and through its grants to reproductive biology centers

abroad, has provided specialized training in this field for at least nine physicians and graduate students. The Population Council has also provided several individual awards for specialized study. The scientists trained in reproductive physiology are anxious to support the developing Government family planning program and will likely be closely associated with the clinical evaluation of new methods of family planning.

Private Agencies

Chulalongkorn Red Cross Hospital

In January 1965, the Chulalongkorn Hospital opened an intrauterine device clinic, which has continued to be exceptionally popular with women coming to the clinic from all areas of Thailand. By October 1968, the clinic had inserted over 40,000 IUDs and was conducting clinical studies on a variety of oral and injectable contraceptives. The family planning unit at Chulalongkorn has acquired a well-deserved international reputation and has participated along with three other Bangkok hospitals in the International Postpartum Program sponsored by the Population Council. The staff of the unit are actively involved in the Ministry of Health training program for doctors and nurses, with the clinic facilities at Chulalongkorn used to train physicians in IUD insertions. A mobile unit provided by the International Planned Parenthood Federation (IPPF) is used to transport staff and equipment to rural areas at regular intervals. Over 5,000 devices have been inserted by the Chulalongkorn staff in the rural program.

Family Planning Association of Thailand

The Family Planning Association (FPA) was organized by a number of concerned private citizens in 1958. It has continued to provide intrauterine devices, cervical caps and conventional contraceptives to urban and rural women in selected areas. The Association is largely self-supporting and does not receive large amounts of outside financial assistance. The President and Secretary of the Association are recognized as pioneers in family planning in Thailand. The Association has not been directly con-

nected with the planning or implementation of the new Government program but has expressed a desire and willingness to cooperate. The FPA holds associate membership in the International Planned Parenthood Federation.

PREVALENCE OF BIRTH CONTROL PRACTICE

A cumulative total of more than 100,000 IUD insertions has been reported in Thailand. Of these, more than half have been performed in various Bangkok institutions. Since the major thrust of the MOPH program is in the non-urban areas, it is anticipated that there will be a significant increase in rural insertions as the program develops. Oral contraceptives have only recently been introduced into the government program, and it is too soon to estimate their impact. Commercial sales approximate 150,000 cycles of pills per month, with close to half the sales occurring outside of Bangkok. Figures are not available on the number of IUD insertions performed by physicians in their private practices. A rough estimate would suggest that not less than 6 per cent of the approximately 4 million married women aged 20-44 have adopted a modern contraceptive technique.

IUD insertions are performed by physicians. There are no plans to train paramedical personnel to perform insertions. Although the Ministry now requires primary physician prescription of oral contraceptives, they can be purchased on the local market without prescription at a cost as low as \$0.25 per cycle.

According to a regulation of the Ministry of Public Health, female sterilizations can be performed in hospitals under the Ministry's jurisdiction if the Director of the hospital finds such an operation justified by the economic and/or living conditions of the family of the woman involved. There is no law that prohibits sterilization. Private doctors may perform sterilizations in their own clinics.

The regulation adopted in 1962 replaced a prior regulation that required that a woman have at least five children in addition to the approval of three doctors and the chief of the medical services division before a sterilization could be performed.

When these conditions were met, the Director of the hospital was empowered to decide whether the operation was justified.

Sterilizations are performed frequently in Government hospitals. There is less information about their frequency in private practice. However, many doctors and lay people continue to believe that the earlier restrictive regulation is still in effect, with the result that few sterilizations are performed on women with less than five children.

It has been estimated that 10,000 female sterilizations are performed each year in Thailand. The number of male sterilizations, according to surveys, is estimated to be about half as great.

Abortion is illegal in Thailand except under limited circumstances; the Penal Code of Thailand stipulates that such an operation may be performed by a medical practitioner on a woman whose health necessitates it or whose pregnancy resulted from rape or pandering. Because of the Buddhist injunction against the taking of life, however, most doctors are reluctant to perform abortions even in those situations when it would be technically legal. While it is known that many Thai women do resort to abortion to prevent an unwanted birth, reliable figures on the prevalence of abortions in Thailand are not available.

ASSISTANCE FROM INTERNATIONAL AGENCIES

The Population Council

The Population Council has been a major source of both financial support and long-term technical advisors. Since 1964, the Council approved a series of grants totaling over \$500,000 for the support of population activities in Thailand. Major support has gone to the National Research Council for a resident advisor and to finance the initial family planning KAP study and action program in Potharam. Over \$150,000 has been made available to the Ministry of Public Health. This support has provided a resident medical advisor, funds for in-service training, research projects, equipment and supplies of IUDs. The Population Research and Training Center at Chulalongkorn

University was created with a \$50,000 Council grant. In addition, the services of a resident demographer and funds for a major national survey of social and demographic change have been provided. Financial support from the Council has enabled four hospitals in Bangkok to participate in the Council's Postpartum study and to undertake studies of the acceptance and effectiveness of IUDs. A proposal to expand the Postpartum Program to ten rural hospitals has recently been approved. A number of individual scholarships and travel grants have been awarded. A short-term consultant has been provided to the Manpower Planning Division of NEDB. A proposal for long-term assistance to that agency is being considered.

The Council intends to provide, on request, continuing support to the Population Research and Training Center, the National Research Council and the Ministry of Public Health. Support for the continuation of the Postpartum project for at least an additional two years will also be made available.

United States Operations Mission (USOM)

In FY '68, USOM actively began to support family planning activities in Thailand with an initial grant totaling \$650,000. Most of this grant was for commodity support, including clinic equipment, vehicles and oral contraceptives. In addition, participant training in the U. S. and third-country training was provided along with funds for a resident Population Officer. Similar assistance is planned over the succeeding three years with an increasing percentage of the funds being used to provide oral contraceptive supplies for the government program. A substantial five-year contract proposal with a US university to provide backstopping support and to develop a sister institutional relationship with the Faculty of Public Health and Population and Social Research Center in Bangkok is being considered.

Ford Foundation

Ford Foundation assistance in population has been designed to complement the assistance available from

other international agencies. A consultant in programmed instruction was made available to the Ministry of Health for six months, during which time a series of programmed instruction manuals on methods of contraception were prepared for midwives and nurses in Thailand.

At least nine Thais have received postgraduate training in reproductive biology through Foundation grants to the host institution. Two senior Thai scientists have been sent for short-term specialized study in reproductive physiology during the past year.

The Foundation has indicated its willingness to provide, on request, additional specialized short-term technical assistance at appropriate points in the program's development.

UNICEF

UNICEF has been assisting the Ministry of Public Health in developing MCH activities for several years. For the three-year period, 1969-1971, a total of \$51,000 will be provided to assist in the training of midwives. Equipment and supplies have been made available to clinics operated by the Department of Health. In addition, vehicles have been supplied for general MCH purposes. UNICEF has also provided equipment to the Faculty of Public Health for its health education training program.

International Planned

Parenthood Federation (IPPF)

The Family Planning Association of Thailand holds associate membership in the IPPF but does not receive direct financial support from this agency. IPPF has provided support to a number of family planning projects in Thailand, including Chulalongkorn Hospital, McCormick Hospital in Chiangmai, Bangkok Municipal Health Department, Siriraj and Vajira Hospitals. Over twenty Thais have received training at the IPPF regional training center in Singapore.

Rockefeller Foundation

Through a three-year grant of \$133,000 made by the Rockefeller Foundation to the Population Center at the University of North Carolina, the Center for Population and Social

Research in Bangkok has received the services of a resident advisor and some project support for the study in Bangkok.

The Foundation has provided substantial technical and financial support to the new Faculty of Medical Sciences and Ramatibodi Medical School within the University of Medical Sciences. A number of the basic science and clinical staff of this new facility will be in a position to contribute to the Family Health Program.

Pathfinder Fund

The Pathfinder Fund has contributed limited quantities of conventional contraceptives to the Family Planning Association. Supplies of new intrauterine devices will be provided to the medical schools for clinical evaluation.

China Medical Board

The China Medical Board has supplied much of the scientific laboratory equipment available to those working in reproductive physiology.

Church World Service

The family planning project at McCormick Hospital in Chiangmai has received some support and supplies from Church World Service.

Brush Foundation

The Brush Foundation (US) assisted the Family Planning Association in the early years of its operation.

EVALUATION OF POPULATION ACTIVITIES

Facilitating Factors

During the past eighteen months the degree of official concern that has been focused on Thailand's rate of population growth and its relationship to social and economic development has increased significantly. The King of Thailand and the Prime Minister have both expressed concern about the high rate of population growth, as well as support for family planning efforts.

Completed surveys and patient response to clinic services have conclusively shown an unusually high receptivity to family planning among women in Thailand.

The leadership provided by the Under-Secretary of State for Public Health, along with the support of the Director Generals of Health and Medical Services, has resulted in a significant expansion of family health services provided by the Ministry of Health. Under the new Family Health Program, the professional staff of the Ministry (physicians, nurses and midwives) are receiving training in family planning.

A reasonably good network of public hospital and health facilities exists. Very significant family planning work has been done by the Chulalongkorn Red Cross Hospital, and interest has been shown by other agencies outside the Ministry of Public Health, such as municipal health departments.

Oral contraceptives are widely available without prescription and at reasonable prices in the private sector. Sales of oral contraceptives through the private sector are continuing to increase.

The medical schools in Thailand have been actively involved in the clinical evaluation of new and existing contraceptive methods. The staff engaged in family planning within the medical schools supports the government program and represents a valuable indigenous resource for research and training.

A number of influential leaders both in and outside government have recognized the urgency of the population problem and are continuing to press for effective government action.

The Government's major economic planning agency is becoming increasingly concerned about the implications of too rapid population growth.

The establishment and strengthening of social science, public health and demographic institutions that have taken place outside the Ministry of Health offer an important resource for the developing program.

Assistance from a number of international agencies is available to meet the foreign currency costs and technical assistance needs of an expanded program.

Limiting Factors

The Cabinet has not yet given strong endorsement to a program for reducing the rate of population

growth and has placed restrictions on the use of public information facilities for spreading information about contraception. As a result, government agencies have tended to proceed slowly and with caution in developing population programs, and only selected sectors of the public have received information about existing services. These restrictions are presently being reevaluated in the light of recent official statements from the King, the Prime Minister and others.

A number of misconceptions about population and family planning continues to be prevalent among government officials and opinion leaders, in spite of the educational work that has been carried out in recent years by the National Research Council and other agencies. Some common misconceptions are:

- (i) that the practice of birth control may lead to a reduction in the absolute size of the population of Thailand;
- (ii) that Thai-Chinese have less desire for family planning, and a lower rate of practice, than Thais;
- (iii) that a government population policy would be equivalent to a compulsory birth control program;
- (iv) that an increase in knowledge about contraception will cause a lowering of moral standards;
- (v) that a larger population is desirable for short-term security needs, such as for provision of military manpower.

While misconceptions such as these are voiced less frequently now than in years past, they still exist and must be recognized as an obstacle to development of population programs.

The National Economic Development Board has only recently become actively involved in the development of a population policy for Thailand, so has not yet exerted strong pressures on the government through economic channels. The NEDB is responsible for preparing the five-year development plans, and inclusion of a population policy in the next plan would have significant influence, although implementation of a population policy would still require that other autonomous agencies, such as

the Budget Bureau, concur with the plan's recommendations.

The manpower and facilities of the Ministry of Public Health are not yet sufficient to carry a program to all of the people of Thailand. The budget of the MOPH is small (3 per cent of the national budget), and there are not yet any signs that the budget will be increased in sufficient measure to mount a vigorous national family planning program.

In Thailand, as in many countries, priority is given to short-term development projects with visible results. Population programs, with principal benefits occurring over a long period and measurable only in terms of seemingly abstract statistics, are at a disadvantage in competition for funds and personnel. These problems are particularly acute in a country with generous natural endowments, such as Thailand, where the negative consequences of rapid population growth are not immediately or forcibly apparent.

SUMMARY

This paper has summarized the population trends and current status of family planning in Thailand. The Ministry of Public Health's plan to extend services through existing health facilities as part of a program to improve maternal and child health would appear to represent a logical first step toward a national program. Several indigenous institutions exist that offer demographic, social science and medical support. The financial and technical assistance provided by international agencies appears adequate to meet the major needs of the program. While a number of factors exist which have thus far prevented the adoption of a national population policy, considerable overall progress has been made in developing the base on which a significant national effort could be mounted.

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This is part of an information service provided by The Population Council and The International Institute for the Study of Human Reproduction, Columbia University, under a grant from The Ford Foundation.